Village of Richfield
www.richfieldwi.gov
262-628-2260

AGENDA
SPECIAL VILLAGE BOARD MEETING
VILLAGE OF RICHFIELD
RICHFIELD VILLAGE HALL
4128 HUBERTUS ROAD, HUBERTUS WISCONSIN
JULY 17, 2014
7:30 P.M.

1. Call to Order
2. Roll Call
3. Pledge of Allegiance
4. DISCUSSION/ACTION ITEMS
    a. Discussion regarding the results from Kunkel Engineering Groups Site Facility Assessment at Heritage Park on behalf of the Richfield Volunteer Fire Company
5. Adjournment

Additional explanation of items on the agenda (Communication Forms) can be found on the village's website at www.richfieldwi.gov. Notification of this meeting has been posted in accordance with the Open Meeting Laws of the State of Wisconsin. It is possible that members of and possibly a quorum of members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information; no action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.

Requests from persons with disabilities who need assistance to participate in this meeting or hearing should be made to the Village Clerk's office at 628-2260 with as much advance notice as possible.

Village of Richfield

Fire Station No. 2

Facility Study

Submitted by:

Kunkel Engineering Group

July 11, 2014

Village of Richfield
Fire Station No. 2 – Facilities Study

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Village of Richfield
Fire Station No. 2 – Facility Study

Chapter 1 – Executive Summary

The Village of Richfield Volunteer Fire Company was originally established in 1900. The Fire Company currently has three stations, a larger station which is located in the NE corner of the Village and two satellite stations which serve as storage facilities, primarily. The Fire Company has approximately 15 pieces of apparatus and 63 'paid on-call' staff supplemented by two full-time members that service the Village of Richfield and the surrounding townships. The Village of Richfield had previously requested studies to analyze the needs of the fire department including the Fire Company Audit prepared in October, 2005 and the Public Facilities Needs Assessment Impact Fee Study Update undertaken in 2006 and 2009, respectively. The needs of the Fire Company have been documented for years and indicate that given the age of the facilities, the size and the needs of a growing Village, a new fire station is required to be constructed. For obvious reasons, the Village and Fire Company have planned for several years that the station should be sited on the Village Hall campus at Heritage Park, the most centralized location in the Village, and be maintained as a command center for all fire department and emergency operations in the future.

This study as incorporated within the accompanying report evaluates options for constructing the new fire station, site constraints and projects cost estimates for the three alternatives including:

- Construction of an independent fire station
- Construction of a multi-use fire station/Village Hall
- Construction of a new fire station appended to the existing Village Hall

The costs for each option range between:

- Option No. 1 – $3,400,000.00 - $3,800,000.00
- Option No. 2 – $4,500,000.00 - $4,900,000.00
- Option No. 3 – $3,600,000.00 - $4,100,000.00

Based upon the analysis, we heretofore recommend the Village of Richfield consider adopting of either Option No. 1 or Option No. 2 to facilitate construction of a new fire house with facilities to meet the Company's needs (i.e.: overnight sleeping facilities, etc.). Moreover, we recommended that additional planning and site investigation work be done as a precursor to site development as a means to ensure what is built best meets the future needs of the Fire Company and that the proposed location will not negatively impact construction of the facility or subsequent additions.

Chapter 2 - General

General

The Village of Richfield is served by the Richfield Volunteer Fire Company which has been serving the community since June of 1900. In addition to fire-fighting efforts, the Richfield Volunteer Fire Company expanded services to include *emergency medical services* (EMS) in 1959 which was followed by the formation of the Richfield Volunteer Fire Department Rescue Squad. The Richfield Volunteer Fire Company incorporated in 1975 and had worked for the Village and previously the Town of Richfield through a contractual services agreement. Ultimately, as a means to provide more comprehensive and cost effective services, the Richfield Volunteer Fire Department merged with the Lake Five Volunteer Fire Department, the Friess Lake Volunteer Fire Department and the Bark Lake Fire Department.

Currently, the Richfield Volunteer Fire Department team consists of approximately 63 members who are considered 'paid on-call' volunteers and are supplemented by two full-time employees, including the Chief. Responsibilities of the personnel include 19 fire fighters, 11 EMTs and 33 combined fire fighters/EMTs. The Richfield Volunteer Fire Company owns 15 pieces of major equipment including four (4) engines, three (3) tankers, three (3) rescue vehicles, two (2) ambulances, one (1) grass/command vehicle and a historic engine and trailer used for public education purposes. The Richfield Volunteer Fire Company aspires to maintain equipment to a high standard and has implemented a replacement schedule in order to optimize efficient fire-fighting operations. As the equipment has been updated over the years, so has the training of the personnel associated with the Richfield Volunteer Fire Company in order to expand the capabilities of the personnel to deal with the nuances of new regulations and disaster procedures.

Existing Facilities

The Richfield Volunteer Fire Company currently maintains three (3) facilities located within the Village to both house apparatus and maintain fire department and EMS operations. The Richfield Volunteer Fire Company serves a district of approximately 47 square miles with a population of approximately 15,000 residents, including the Towns of Erin and Polk.

Station Number 1 Headquarters

Station Number 1 is located in the NE corner of the Village on STH 175. It serves as the headquarters for all fire department operations. The building is a single story structure originally built in 1950 and remodeled in 1982 and more recently in 2013. The building is approximately 8,200 square feet with 3,800 square feet devoted to apparatus and storage. The building is a single story brick structure, a single story in height with four garage bays, two units deep. The station itself provides minimal training facilities and has no shower or sleeping facilities within the

confines of the building. The facilities, although well-maintained, do not provide adequate room for apparatus or most training and administrative functions as are now required of municipal fire departments.

Station Number 2

Station Number 2 is located on STH 164 and was originally constructed in 1975. The building has a smaller footprint, 3,600 square feet with 2,750 square feet being designated as an apparatus bay. The single story structure provides three bays, two units deep, and due to limited space does not provide operational space for equipment or staff and is served by only a single office with restroom facilities. Due to the size of this structure, equipment must be parked in a particular manner due to the lack of garage space. The primary function of Station Number 2 is to house fire apparatus and equipment.

Station Number 3

Station Number 3 is located on North Lakeview Road. The single story structure was originally built in 1952 and remodeled in the 1980s. The building provides approximately 1,500 square feet of space of which 1,000 square feet is dedicated for a single apparatus bay. Due to its small size, only a single vehicle, the ambulance, is stored at this facility. Many times, due to its remote location, no apparatus is stored at Station Number 3 and is used primarily as a garage for extraneous fire equipment and supplies.

Previous Reports

Over time, as the Town, now the Village of Richfield has grown, attention has rightfully been focused upon emergency service facilities and the need to optimize operations as the population of the community has continually grown. The Village, having recognized the need to evaluate emergency services facilities, has commissioned four separate analyses as a means to identify deficiencies, evaluate alternative remedies and most importantly how to answer the question as to how to finance the needed facility improvements. Below is a synopsis of these reports:

Town of Richfield Assessment Report, dated September 10, 2004

The report analyzed both the space and integrity of buildings housing the then Town Hall and maintenance shop. The report did not particularly address the functional characteristics of the facilities but was focused more upon the structure and mechanical

systems. No fire department facilities were addressed within the confines of the 2004 report.

Facilities Master Plan – September 2005

The Facilities Master Plan report was prepared to focus upon the then Town Hall campus including both the Town Hall and maintenance building. The focus of the Master Plan was to develop a consensus among Town staff, Town supervisors and community stakeholders relative to the improvements necessary to serve the then population of 11,000 people. The Facilities Master Plan in essence piggybacked onto the Assessment Report previously undertaken in 2004. Although the Master Plan noted functional deficiencies with the existing Town Hall administrative operations, it did not incorporate an analysis of the Richfield Volunteer Fire Department buildings or operations.

Richfield Volunteer Fire Company – Fire Company Audit prepared in October, 2005

The Audit Report provides a comprehensive overview of the origins of the Fire Company, evolution over time, examines existing equipment and facilities and provides recommendations for both future staffing and upgrades to fire station facilities. The report provided two (2) major recommendations when concluding the analysis. First, a new fire station of approximately 17,000 square feet should be constructed within a central Village location and the existing Fire Station Number 1 should remain in service as a satellite station. Second, the Village should enact an Impact Fee Ordinance which would levy upon new residential and commercial building within the community a fee to upgrade fire department facilities.

Ultimately, the recommendations were reviewed by the then Town Board and an Impact Fee Ordinance adopted in order to set aside money from new development within the community to fund building improvements for expanding fire department facilities.

Public Facility Needs Assessment and Impact Fees Study Update – Fire Facilities – Prepared July, 2009

The Village of Richfield, recognizing the need to upgrade fire department facilities, requested that a consultant reevaluate the existing Impact Fee Study and Ordinance adopted in 2006. The Impact Fee Report essentially evaluated existing facilities and projected those needed to serve future populations and indicated that approximately 32% or $1.4M of the $4.3M cost was due to new population growth. Monies regulated to impact fees on new development within the Village have been set aside to fund the construction of a new, centralized fire house, intended to serve as headquarters for emergency operations in the Village.

Chapter 3 – Focus of Facilities Study

Station Requirements

The Fire Company audit prepared in 2005 recommended that a new centralized fire station, serving as Fire Company Headquarters be constructed with approximately 17,000 square feet. The report further elaborated that the new station should be constructed as a three (3) bay drive through apparatus floor to optimize maneuverability and limit both the moving of vehicles as well as eliminating much of the need to back up. Among others, amenities included sleeping/bunk quarters, offices, kitchen, lounge, dayroom, training areas, as well as adequate parking and storage to serve Fire Company personnel. Since that time, the Public Facilities Needs Assessment and Impact Fee Study Update prepared in 2009 has recommended that the station now be constructed as a 21,000 square foot facility with 10,000 square feet relegated as an apparatus area with the balance of 11,000 square feet being reserved for Fire Company operations including sleeping quarters, locker rooms, offices and training. Figure 1 of this report provides a summary of the space needs requirements associated with construction of a new fire station as detailed within the report prepared by Ruekert-Mielke's Municipal Economics and Planning division in July of 2009.

For purposes of this analysis, based upon the reports prepared on behalf of the Village of Richfield, we are making the following assumptions:

- The future fire station will be constructed on property owned by the Village of Richfield located in or adjacent to Heritage Park.

- A new fire station will ultimately serve as headquarters for the Richfield Volunteer Fire Company and therefore will provide space for a centralized bookkeeping system, training and a dormitory with overnight accommodations for six personnel.

- The new fire station will be approximately 21,000 square feet in size with 10,000 square feet serving as an apparatus area and the balance for personnel and operations accommodations.

- Existing Fire Company headquarters, located on STH 175, will continue to serve the Company as a satellite station. Roles of both Station Nos. 2 and 3 will remain primarily unchanged. However, it is possible that Station No. 3 may be sold with revenue used towards the construction of the new headquarters.

- Building costs were based upon steel, block and brick construction acknowledging that the Village may save money if they elected to develop a plan for a pre-engineered steel building. However, costs for same have not been compiled as part of this analysis.

Alternatives

Option 1 – New stand-alone structure

Description

The first alternative evaluated consisted of constructing a free standing, stand-alone fire house with approximately 21,000 square feet located on Hubertus Road on the west end of the property, the approximate location of the existing tennis courts. In essence, the building would provide 5 apparatus bays, fire department offices and dormitory, parking and room along the west edge of the building for future expansion. The property would be served by dual driveways, the first providing access through the apparatus bays while the second providing vehicular access to the adjoining parking lot(s). Figure 2 appended herein reflects the proposed location and layout of the facilities.

Costs

Costs for the proposed facility were estimated at $2,250,000.00 in 2004 and $2,520,000.00 based upon the 2009 Public Facilities Needs Assessment and Impact Fee Study Update. This is approximately 2.3% inflation per year and if extrapolated to 2015, the estimate of the cost of the stand-alone station would be approximately $2,890,000.00.

Utilizing *R.S. Means*, the cost of the proposed building construction, excluding site work, was estimated to be approximately $3,511,000.00. Site work for the building including preparation, parking lot construction, stormwater management and relocation of the tennis courts could range between $250,000.00 - $350,000.00 dependent upon site grading and geotechnical requirements. As a general rule of thumb, this method of extrapolating costs is generally conservative and for the purposes of this analysis, resulted in a per square foot building cost of $167.00. Therefore, if the Village of Richfield elected to construct a stand-alone fire station with the amenities described herein at the proposed site, we would recommend that a budget range be established of $3,400,000.00 - $3,800,000.00. Figure 3 of this report provides an estimate to construct a stand-alone fire department.

Pros and Cons

Pros:

- Drive through apparatus bays
- Separates fire department from other Village buildings
- Does not impact low areas/wetland
- Uses one new and one existing Hubertus Road curb cut
- Provides room for apparatus bay expansion
- Parking lot can be shared with baseball
- Least expensive of the three options
- Centrally located within Village
- Well planned building and ancillary facilities

Cons

- Requires new mechanical, electric, plumbing, septic system and well/utilities
- Requires new parking lot
- Requires tennis court relocation
- High initial capital expense
- Noise and traffic during emergency operations

Option 2 – New fire station expanded for future Village Hall addition

Description

Option 2 evaluates the costs and operations of constructing a new fire department with the ability to be expanded, at a future date, to accommodate Village Hall functions. In essence, the same 21,000 square foot facility would be constructed for fire department/emergency operations with 10,000 square feet relegated as a drive through apparatus garage similar to Option 1. Again, a future apparatus bay could be constructed to the west of the building and parking would be located on the east side of the structure. However, we project the new Village Hall facilities consisting of an addition of approximately 1,500 feet would be appended to the east side of the proposed fire department constructed as a shared-use facility. In essence, approximately 4,000 square feet within the fire department would also be used by Village administrative staff bringing the total equivalent Village Hall accessible space to approximately 5,500 square feet.

Figure 4 of this analysis provides a spreadsheet of the shared-use analysis for the fire department/Village Hall building and Figure 5 provides a location map for Option 2.

Costs

Costs for a dual-use shared structure had not previously been developed within the context of previous reports. Therefore, only *R.S. Means* was utilized in order to develop a combined building cost.

Figure 6 to this report provides an estimate to construct a dual-use facility, Richfield Fire Station and Village Hall, concurrently. It is imperative that the reader understand that provided that the Village administrative offices are serviceable today, they would not need to be constructed concurrent with the fire station but could be appended at a future date should the Village decide that to be the most viable option to support. In essence, the *R.S. Means* analysis utilizing the same per square foot costs of approximately $167.00 reflects that a combined facility including the 21,000 square foot fire station and 1,500 square foot Village Hall and amenities would cost approximately $4,300,000.00.

Again, site work, parking lot construction and stormwater management would add $350,000.00 - $450,000.00 to the estimate. For budgeting purposes, we would recommend that the Village of Richfield plan to spend $4,500,000.00 - $4,900,000.00 for the 26,000 square foot shared-use facility consisting of a new fire department and Village Hall, adjusted by inflation should the latter be added at a future date. Please note that this option provides for an extra 1,000 square feet as a conservative allowance.

Pros and Cons

Pros

- Drive through apparatus bay
- Shared spaces for Village Hall and Fire Department
- Does not impact low area/wetland
- Uses one new Hubertus Road curb cut
- Room for future apparatus bay expansion
- New parking can be shared with baseball
- Combines Village Hall and Fire Department at a new location
- Possible reuse of Village Hall for other functions
- Efficient operation with smaller total footprint
- Central campus for voting/meetings/fire department operations/Village administration

Cons

- Most expensive of three options
- Requires new mechanical, electric, plumbing and septic well systems/utilities
- Requires new parking lot
- Requires tennis court relocation

Option 3 – Fire Station addition to existing Village Hall

Description

As with Option 2, the third option considers construction of a new fire station facility abutting the west side of the existing Richfield Village Hall. Again, the premise of the design is construction of 21,000 square foot building consisting of 10,000 square feet and combined office, training and dormitory comprising the balance of the structure. This option does not allow for the use of drive through apparatus bays.

The site constraints and issues severely limit the Village's ability to implement Option No. 3. Existing buildings currently in use occupy portions of the site both east and north of the Village administration building. Therefore, the fire department project would need to be constructed as an appendage to the west side of the building; however the 10 foot drop off severely hampers construction of the apparatus bays. Moreover, the low area west of the Village Hall is subject to flooding, especially during significant rainfall events and in the spring of the year. Much of the site would need to be stabilized with engineer fill material, if permitted, in order to provide a footprint to facilitate construction of the building. Additionally, a sizeable addition to the Village will require some or all of the building to be brought into compliance with the current International Building Code.

For the purposes of this analysis, we do not consider Option No. 3 to be a viable alternative for the Village to consider. Figure 7 of this report provides a location map of Option No. 3.

Costs

Based upon the estimate for the fire station developed in 2004 and revised in 2009, we would interpolate that the costs of the fire station addition would be approximately $3,100,000.00 without site work and filling. A budgetary number based on the *means database* for the proposed appended structure would be approximately $3,500,000.00 excluding site work (See Figure 8 appended herein). Due to the need to import engineer fill material to build the project and undertake substantial fill and grading, we would estimate the site work effort costs to be $500,000.00 to $600,000.00. As a budgetary number, we would recommend the Village of Richfield budget $3,600,000.00 - $4,100,000.00 to implement the proposed alternative.

Pros and Cons

Pros

- No requirement to relocate tennis courts
- Shared spaces for Village Hall and Fire Department
- Efficient operation with smaller total footprint

Cons

- No drive through apparatus bay
- Requires fire department vehicles to back into fire station
- Requires firewall and/or sprinkler system at existing Village Hall
- Requires elevator at existing Village Hall
- Eliminates parking
- Requires reconstruction of holding tanks/well system
- Eliminates softball field
- More expensive than free standing fire station (Option No. 1)

Chapter 4 - Summary and Recommendations

The analysis incorporated within the confines of this report was based upon work efforts and studies previously undertaken on behalf of the Village of Richfield Volunteer Fire Department. However, the focus of the analysis is concentrated upon both where and what to incorporate within the new fire station plan as developed by the Village. As the Village surmised in 2006, there is rationale to build the new fire station on property either within or abutting Heritage Park as it provides a central location for municipal facilities and as the Village center significantly reduces emergency response time to area residents and businesses. The primary questions to be answered are therefore how much should we budget and which alternative construction method suits the Village of Richfield both now and in the future. Based upon our analysis, we can conclude that both Option No. 1 – Stand Alone Fire Station and Option No. 2 – Fire Station/Village Hall Combination appear to make the most sense. Option No. 3, appending the Fire Station to the existing Village Hall just does not make sense.

Recommendations for the Village of Richfield moving forward are as follows:

1. Review the contents of this report and determine which general option best suits the Village of Richfield's needs.

2. Develop a *siting analysis* in order to ascertain the ability to implement either Option 1 or Option 2. The *siting analysis* will be based upon additional geotechnical reports, analysis of wetland and floodplain mapping as well as taking into account other environmental and physical issues that may have an impact upon building either of the options delineated herein. The siting analysis is a preliminary step to the overall programming process for a new facility and can save owners significant sums of money by planning to develop a site in the most environmentally and cost-effective manner possible.

3. Determine if the parameters developed in 2006 and refined in 2009 for the building design space needs requirements accurately reflect the existing and future needs of the Richfield Fire Department. Again, ensuring that what is designed and built best meets the needs of the Village is an important step in the design development process.

4. Determine what, if any, financing will be required to complete the proposed building project as selected by the Village of Richfield.

Richfield Fire Station - Program Comparisons

	Stand Alone Fire Station		
Appartus		10,000	
Mechanical Room	80		
Kitchen	400		
Records Storage	400		
General Storage	400		
Kitchen Pantry	200		
Host Storage	400		
Air Compression	100		
Office 1	132		
Office 2	132		
Office 3	132		
Office 4	132		
Office 5	132		
Office 6	132		
Office 7	132		
Office 8	225		
Men's Public	225		
Women's Public	225		
Male Officer	225		
Female Officer	225		
Lounge	600		
Sleeping Bunks	1,400		
Officer's Bunks	225		
Training	1,100		
Exercise	600		
Study/Library	300		
Eating	400		
Employee RR Men	700		
Employee RR Women	746		
Protective Gear	500		
Reception	400		
	11,000	11000	
		21,000	3,996
	approximately 4,000 SF could be shared		

Figure 1 - Option 1
Stand Alone Fire Station

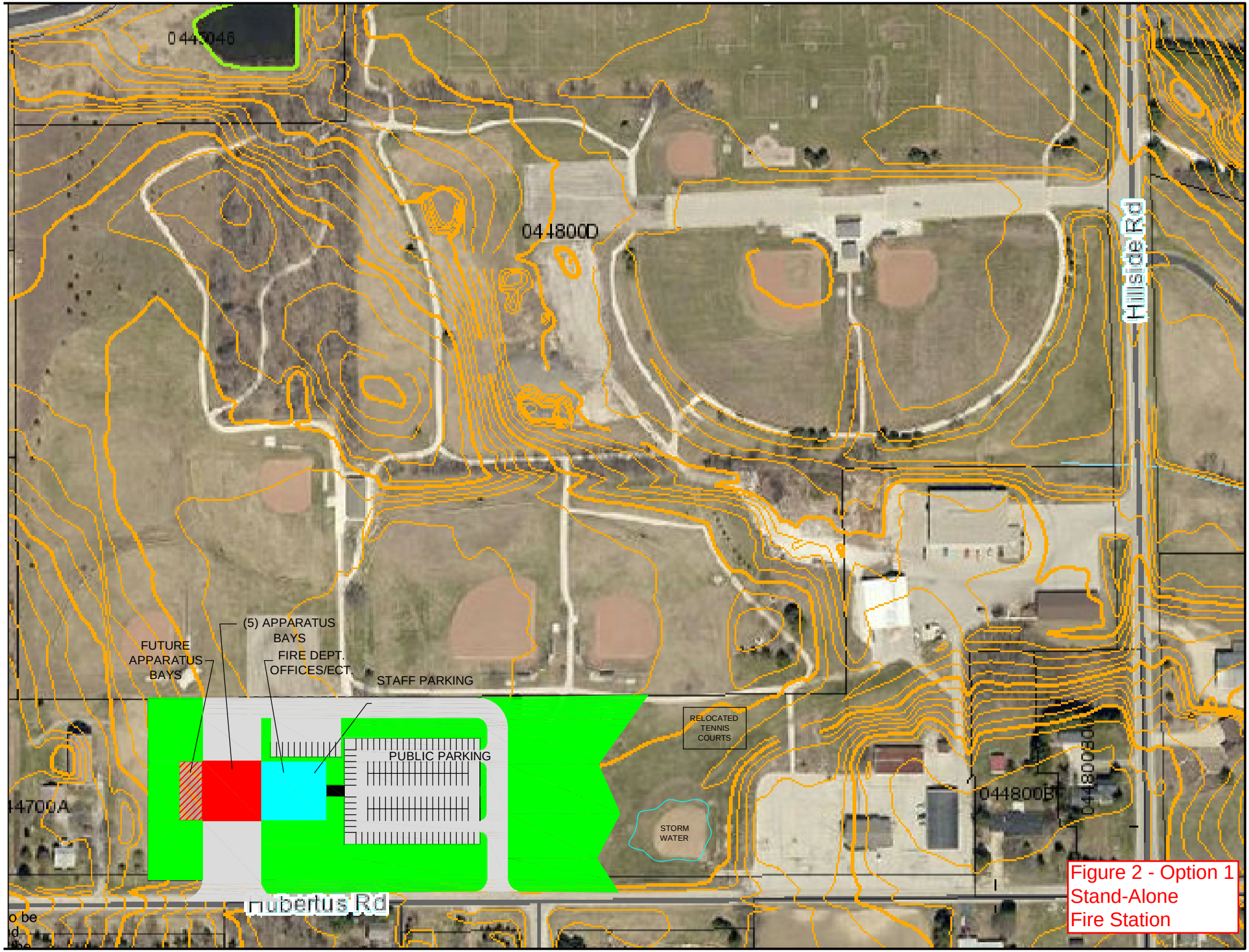

Figure 2 - Option 1
Stand-Alone
Fire Station

Square Foot Cost Estimate Report

Estimate Name:	**Richfield Fire Station** Village of Richfield 4128 Hubertus Road , Hubertus , WI , 53033
Building Type:	**Fire Station, 1 Story with Face Brick Concrete Block Back-up / Steel Joists**
Location:	**Database - MILWAUKEE, WI**
Story Count:	**1**
Story Height (L.F.):	**18**
Floor Area (S.F.):	**21,000**
Labor Type:	**STD Union - Prevailing Wage Rates**
Basement Included:	**No**
Data Release:	**Year 2014 Quarter 2**
Cost Per Square Foot:	**$167.21**
Building Cost:	**$3,511,500.00**

Costs are derived from a building model with basic components.

Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
A Substructure		**9.41%**	**12.67**	**266,000**
A1010	**Standard Foundations**		**1.95**	**41,000**
	Strip footing, concrete, reinforced, load 5.1 KLF, soil bearing capacity 3			
A1030	**Slab on Grade**		**7.31**	**153,500**
	Slab on grade, 5" thick, light industrial, reinforced, recycled plastic vapor			
A2010	**Basement Excavation**		**0.62**	**13,000**
	Excavate and fill, 4000 SF, 4' deep, sand, gravel, or common earth, on			
A2020	**Basement Walls**		**2.79**	**58,500**
	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF,			
B Shell		**29.09%**	**39.17**	**822,500**
B1020	**Roof Construction**		**10.36**	**217,500**
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
B2010	**Exterior Walls**		**17.31**	**363,500**
	Brick wall, composite double wythe, standard face/CMU back-up, 8"			
B2020	**Exterior Windows**		**1.55**	**32,500**
	Windows, aluminum, sliding, insulated glass, 8' x 4'			
B2030	**Exterior Doors**		**3.95**	**83,000**
	Door, aluminum & glass, without transom, narrow stile, double door,			
	Door, steel 24 gauge, overhead, sectional, electric operator, 12'-0" x 12'-			
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x			
B3010	**Roof Coverings**		**5.83**	**122,500**
	Roofing, single ply membrane, TPO, 60 mil membrane, heat welded			
	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive			
	Roof edges, aluminum, duranodic, .050" thick, 6" face			
	Flashing, aluminum, no backing sides, .019"			
	Gravel stop, aluminum, extruded, 4", mill finish, .050" thick			
B3020	**Roof Openings**		**0.17**	**3,500**
	Skylight, plastic domes, insulated curbs, 30 SF to 65 SF, single glazing			
	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized			

Figure 3 - Option 1
Stand-Alone Fire Station

C Interiors		**15.28%**	**20.57**	**432,000**
C1010	**Partitions**		**7.50**	**157,500**
	Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish,			
C1020	**Interior Doors**		**2.50**	**52,500**
	Door, single leaf, kd steel frame, hollow metal, commercial quality,			
C1030	**Fittings**		**0.52**	**11,000**
	Toilet partitions, cubicles, ceiling hung, stainless steel			
C3010	**Wall Finishes**		**3.17**	**66,500**
	Glazed coating, low VOC			
	Painting, masonry or concrete, latex, brushwork, primer & 2 coats, low			
C3020	**Floor Finishes**		**2.93**	**61,500**
	Concrete topping, paint, low VOC			
	Vinyl, composition tile, 12" x 12" x 1/8" thick, recycled content			
C3030	**Ceiling Finishes**		**3.95**	**83,000**
	Acoustic ceilings, 3/4"mineral fiber, 12" x 12" tile, concealed 2" bar &			
D Services		**45.00%**	**60.60**	**1,272,500**
D2010	**Plumbing Fixtures**		**12.10**	**254,000**
	Water closet, vitreous china, bowl only w/ auto flush sensor flush valve,			
	Urinal, vitreous china, wall hung, waterless, ADA			
	Lavatory w/trim, vanity top, PE on CI, 20" x 18", faucet w/ hydroelectric			
	Kitchen sink w/trim, countertop, stainless steel, 33" x 22" double bowl			
	Laundry sink w/trim, molded stone, on wall, 45"x 21" double			
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"			
	Shower, stall, baked enamel, terrazzo receptor, 36" square			
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH, GreenSpec			
D2020	**Domestic Water Distribution**		**2.64**	**55,500**
	Water heaters, tankless, on-demand, natural gas/propane, 9.5 GPM			
D2040	**Rain Water Drainage**		**0.38**	**8,000**
	Roof drain, CI, soil,single hub, 4" diam, 10' high			
	Roof drain, CI, soil,single hub, 4" diam, for each additional foot add			
D3040	**Distribution Systems**		**2.98**	**62,500**
	Heat recovery pkgs, air to air, enthalpy recovery wheel, 10000 max CFM			
D3050	**Terminal & Package Units**		**22.24**	**467,000**
	Rooftop, multizone, air conditioner, medical centers, 10,000 SF, 23.33			
D4010	**Sprinklers**		**4.88**	**102,500**
	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF			
D4020	**Standpipes**		**1.43**	**30,000**
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor			
D5010	**Electrical Service/Distribution**		**0.38**	**8,000**
	Overhead service installation, includes breakers, metering, 20' conduit			
	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A			
	Switchgear installation, incl switchboard, panels & circuit breaker,			
D5020	**Lighting and Branch Wiring**		**10.12**	**212,500**
	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per			
	Miscellaneous power, 1 watt			
	Central air conditioning power, 3 watts			
	LED fixtures, type C, 5 fixtures per 1000 SF			
	Daylight dimming control system, 10 fixtures per 1000 SF			
	Lighting on/off control system, 10 fixtures per 1000 SF			
D5030	**Communications and Security**		**1.98**	**41,500**
	Communication and alarm systems, fire detection, addressable, 25			
	Fire alarm command center, addressable without voice, excl. wire &			

D5090	**Other Electrical Systems** Energy monitoring systems, electrical, three phase, 5 meters Energy monitoring systems, mechanical, BTU, 1 meter w/1 duct & 5 Energy monitoring systems, Front end display Energy monitoring systems, Computer workstation		**1.48**	**31,000**
E Equipment & Furnishings		**0.51%**	**0.69**	**14,500**
E1090	**Other Equipment** 1.00-Sound system, amplifier, 250 W, excl rough-in wires, cables & 25.00-Locker, bench, laminated maple, top only 20.00-Lockers, steel, baked enamel, single tier, 60" or 72", minimum 2.00-Refrigerator, residential appliances, no frost, 10 to 12 C.F., 1.00-Range hood, residential appliances, vented, 2 speed, 30" wide, 1.00-Garbage disposal, residential appliances, sink type, minimum 1.00-Dishwasher, residential appliances, built-in, 2 cycles, minimum 1.00-Compactor, residential size, 4 to 1 compaction, minimum 2.00-Microwave ovens, residential appliances, minimum 1.00-Range, residential appliances, ceramic top, downdraft, with grille,		**0.64**	**13,500**
E2020	**Moveable Furnishings - By Owner** Signage, exterior, surface mounted, 24 ga aluminum, 10" x 7", no		**0.05**	**1,000**
F Special Construction		**0%**	**0.00**	**0**
G Building Sitework		**0%**	**0.00**	**0**
SubTotal		**100%**	**134.64**	**2,827,500**
Contractor Fees (General Conditions,Overhead,Profit)		**15.00%**	**20.19**	**424,000**
Architectural Fees		**8.00%**	**12.38**	**260,000**
User Fees		**0.00%**	**0.00**	**0**
Total Building Cost			**167.21**	**3,511,500**

Richfield Fire Station - Program Comparisons	Stand Alone Fire Station		Shared for Village Hall
Appartus		10,000	
Mechanical Room	80		
Kitchen	400		400
Records Storage	400		
General Storage	400		
Kitchen Pantry	200		
Host Storage	400		
Air Compression	100		
Office 1	132		
Office 2	132		
Office 3	132		
Office 4	132		
Office 5	132		
Office 6	132		
Office 7	132		
Office 8	225		
Men's Public	225		225
Women's Public	225		225
Male Officer	225		
Female Officer	225		
Lounge	600		
Sleeping Bunks	1,400		
Officer's Bunks	225		
Training	1,100		1,100
Exercise	600		600
Study/Library	300		
Eating	400		
Employee RR Men	700		700
Employee RR Women	746		746
Protective Gear	500		
Reception	400		
	11,000	11000	
		21,000	3,996
	approximately 4,000 SF could be shared		

Remainder of Village Hall	
Break/Copy	150
Vault	100
Clerk Office	180
Administrator	150
Conference	150
Chairman	150
Planner	150
Mechanical	100
Treasurer	150
Storage	200
	1,480
shared	3,996
	5,476
currently	5,308

Figure 4 - Option 2
Fire Station/Village Hall
Shared Use Facility

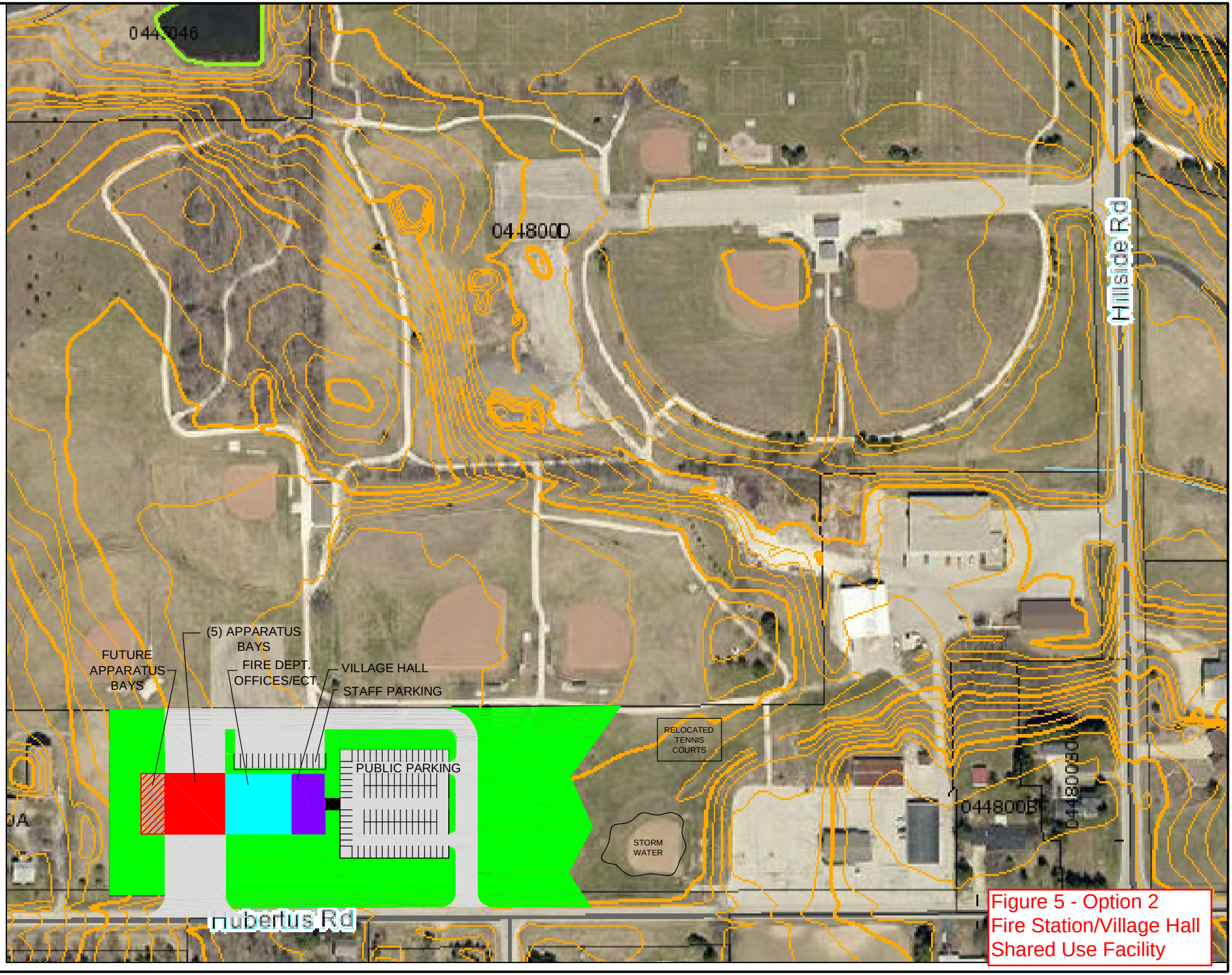

Figure 5 - Option 2
Fire Station/Village Hall
Shared Use Facility

Square Foot Cost Estimate Report

Estimate Name:	**Richfield Fire Station & Village Hall** Village of Richfield 4128 Hubertus Road , Hubertus , WI , 53033
Building Type:	**Fire Station, 1 Story with Face Brick Concrete Block Back-up / Steel Joists**
Location:	**Database - MILWAUKEE, WI**
Story Count:	**1**
Story Height (L.F.):	**18**
Floor Area (S.F.):	**26,000**
Labor Type:	**STD Union - Prevailing Wage Rates**
Basement Included:	**No**
Data Release:	**Year 2014 Quarter 2**
Cost Per Square Foot:	**$167.21**
Building Cost:	**$4,317,022.00**

Costs are derived from a building model with basic components.

Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
A Substructure		**9.41%**	**12.58**	**327,019**
A1010	**Standard Foundations**		**1.94**	**50,405**
	Strip footing, concrete, reinforced, load 5.1 KLF, soil bearing capacity 3			
A1030	**Slab on Grade**		**7.26**	**188,712**
	Slab on grade, 5" thick, light industrial, reinforced, recycled plastic vapor			
A2010	**Basement Excavation**		**0.61**	**15,982**
	Excavate and fill, 4000 SF, 4' deep, sand, gravel, or common earth, on			
A2020	**Basement Walls**		**2.77**	**71,920**
	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF,			
B Shell		**29.09%**	**38.89**	**1,011,178**
B1020	**Roof Construction**		**10.28**	**267,394**
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
B2010	**Exterior Walls**		**17.19**	**446,885**
	Brick wall, composite double wythe, standard face/CMU back-up, 8"			
B2020	**Exterior Windows**		**1.54**	**39,955**
	Windows, aluminum, sliding, insulated glass, 8' x 4'			
B2030	**Exterior Doors**		**3.92**	**102,040**
	Door, aluminum & glass, without transom, narrow stile, double door,			
	Door, steel 24 gauge, overhead, sectional, electric operator, 12'-0" x 12'-			
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x			
B3010	**Roof Coverings**		**5.79**	**150,601**
	Roofing, single ply membrane, TPO, 60 mil membrane, heat welded			
	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive			
	Roof edges, aluminum, duranodic, .050" thick, 6" face			
	Flashing, aluminum, no backing sides, .019"			
	Gravel stop, aluminum, extruded, 4", mill finish, .050" thick			
B3020	**Roof Openings**		**0.17**	**4,303**
	Skylight, plastic domes, insulated curbs, 30 SF to 65 SF, single glazing			
	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized			

Figure 6 - Option 2
Fire Station/Village Hall
Shared Use Facility

C Interiors		**15.28%**	**20.43**	**531,099**
C1010	**Partitions**		**7.45**	**193,630**
	Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish,			
C1020	**Interior Doors**		**2.48**	**64,543**
	Door, single leaf, kd steel frame, hollow metal, commercial quality,			
C1030	**Fittings**		**0.52**	**13,523**
	Toilet partitions, cubicles, ceiling hung, stainless steel			
C3010	**Wall Finishes**		**3.14**	**81,755**
	Glazed coating, low VOC			
	Painting, masonry or concrete, latex, brushwork, primer & 2 coats, low			
C3020	**Floor Finishes**		**2.91**	**75,608**
	Concrete topping, paint, low VOC			
	Vinyl, composition tile, 12" x 12" x 1/8" thick, recycled content			
C3030	**Ceiling Finishes**		**3.92**	**102,040**
	Acoustic ceilings, 3/4"mineral fiber, 12" x 12" tile, concealed 2" bar &			
D Services		**45.00%**	**60.17**	**1,564,406**
D2010	**Plumbing Fixtures**		**12.01**	**312,266**
	Water closet, vitreous china, bowl only w/ auto flush sensor flush valve,			
	Urinal, vitreous china, wall hung, waterless, ADA			
	Lavatory w/trim, vanity top, PE on CI, 20" x 18", faucet w/ hydroelectric			
	Kitchen sink w/trim, countertop, stainless steel, 33" x 22" double bowl			
	Laundry sink w/trim, molded stone, on wall, 45"x 21" double			
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"			
	Shower, stall, baked enamel, terrazzo receptor, 36" square			
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH, GreenSpec			
D2020	**Domestic Water Distribution**		**2.62**	**68,231**
	Water heaters, tankless, on-demand, natural gas/propane, 9.5 GPM			
D2040	**Rain Water Drainage**		**0.38**	**9,835**
	Roof drain, CI, soil,single hub, 4" diam, 10' high			
	Roof drain, CI, soil,single hub, 4" diam, for each additional foot add			
D3040	**Distribution Systems**		**2.96**	**76,837**
	Heat recovery pkgs, air to air, enthalpy recovery wheel, 10000 max CFM			
D3050	**Terminal & Package Units**		**22.08**	**574,128**
	Rooftop, multizone, air conditioner, medical centers, 10,000 SF, 23.33			
D4010	**Sprinklers**		**4.85**	**126,013**
	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF			
D4020	**Standpipes**		**1.42**	**36,882**
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor			
D5010	**Electrical Service/Distribution**		**0.38**	**9,835**
	Overhead service installation, includes breakers, metering, 20' conduit			
	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A			
	Switchgear installation, incl switchboard, panels & circuit breaker,			
D5020	**Lighting and Branch Wiring**		**10.05**	**261,247**
	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per			
	Miscellaneous power, 1 watt			
	Central air conditioning power, 3 watts			
	LED fixtures, type C, 5 fixtures per 1000 SF			
	Daylight dimming control system, 10 fixtures per 1000 SF			
	Lighting on/off control system, 10 fixtures per 1000 SF			
D5030	**Communications and Security**		**1.96**	**51,020**
	Communication and alarm systems, fire detection, addressable, 25			
	Fire alarm command center, addressable without voice, excl. wire &			

D5090	**Other Electrical Systems**		**1.47**	**38,111**
	Energy monitoring systems, electrical, three phase, 5 meters			
	Energy monitoring systems, mechanical, BTU, 1 meter w/1 duct & 5			
	Energy monitoring systems, Front end display			
	Energy monitoring systems, Computer workstation			
E Equipment & Furnishings		**0.51%**	**0.69**	**17,826**
E1090	**Other Equipment**		**0.64**	**16,597**
	1.00-Sound system, amplifier, 250 W, excl rough-in wires, cables &			
	25.00-Locker, bench, laminated maple, top only			
	20.00-Lockers, steel, baked enamel, single tier, 60" or 72", minimum			
	2.00-Refrigerator, residential appliances, no frost, 10 to 12 C.F.,			
	1.00-Range hood, residential appliances, vented, 2 speed, 30" wide,			
	1.00-Garbage disposal, residential appliances, sink type, minimum			
	1.00-Dishwasher, residential appliances, built-in, 2 cycles, minimum			
	1.00-Compactor, residential size, 4 to 1 compaction, minimum			
	2.00-Microwave ovens, residential appliances, minimum			
	1.00-Range, residential appliances, ceramic top, downdraft, with grille,			
E2020	**Moveable Furnishings - By Owner**		**0.05**	**1,229**
	Signage, exterior, surface mounted, 24 ga aluminum, 10" x 7", no			
F Special Construction		**0%**	**0.00**	**0**
G Building Sitework		**0%**	**0.00**	**0**
SubTotal		**100%**	**132.75**	**3,451,528**
Contractor Fees (General Conditions,Overhead,Profit)		**15.00%**	**19.91**	**517,729**
Architectural Fees		**8.00%**	**12.21**	**317,541**
User Fees		**0.00%**	**0.00**	**0**
Total Building Cost			**167.21**	**4,317,022**

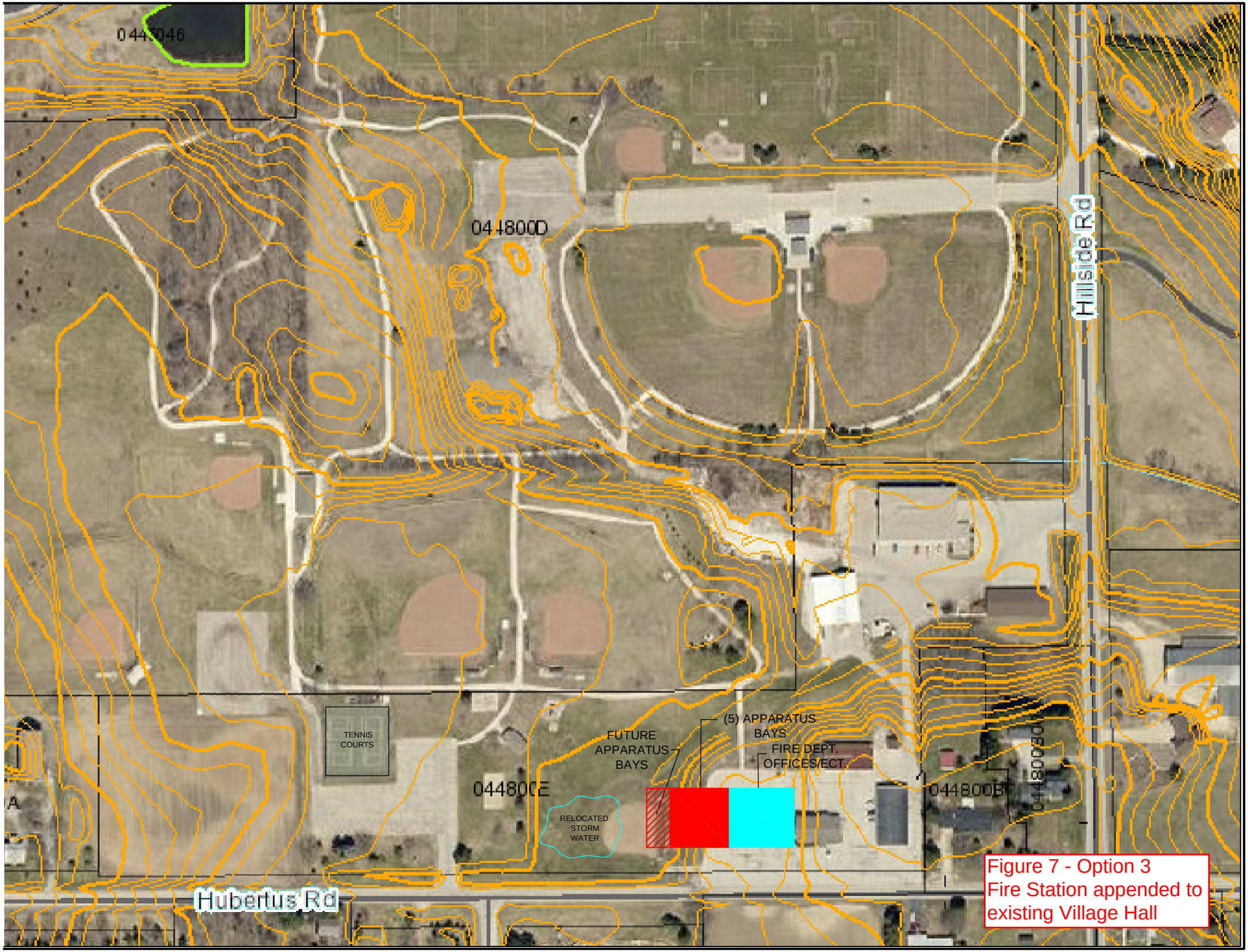

Figure 7 - Option 3
Fire Station appended to existing Village Hall

Square Foot Cost Estimate Report

Estimate Name:	**Richfield Fire Station** Village of Richfield 4128 Hubertus Road , Hubertus , WI , 53033
Building Type:	**Fire Station, 1 Story with Face Brick Concrete Block Back-up / Steel Joists**
Location:	**Database - MILWAUKEE, WI**
Story Count:	**1**
Story Height (L.F.):	**18**
Floor Area (S.F.):	**18,900**
Labor Type:	**STD Union - Prevailing Wage Rates**
Basement Included:	**No**
Data Release:	**Year 2014 Quarter 2**
Cost Per Square Foot:	**$185.73**
Building Cost:	**$3,510,350.00**

Costs are derived from a building model with basic components.

Scope differences and market conditions can cause costs to vary significantly.

		% of Total	Cost Per S.F.	Cost
A Substructure		**9.41%**	**12.67**	**239,400**
A1010	**Standard Foundations**		**1.95**	**36,900**
	Strip footing, concrete, reinforced, load 5.1 KLF, soil bearing capacity 3			
A1030	**Slab on Grade**		**7.31**	**138,150**
	Slab on grade, 5" thick, light industrial, reinforced, recycled plastic vapor			
A2010	**Basement Excavation**		**0.62**	**11,700**
	Excavate and fill, 4000 SF, 4' deep, sand, gravel, or common earth, on			
A2020	**Basement Walls**		**2.79**	**52,650**
	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF,			
B Shell		**29.09%**	**39.17**	**740,250**
B1020	**Roof Construction**		**10.36**	**195,750**
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 30'x30'			
B2010	**Exterior Walls**		**17.31**	**327,150**
	Brick wall, composite double wythe, standard face/CMU back-up, 8"			
B2020	**Exterior Windows**		**1.55**	**29,250**
	Windows, aluminum, sliding, insulated glass, 8' x 4'			
B2030	**Exterior Doors**		**3.95**	**74,700**
	Door, aluminum & glass, without transom, narrow stile, double door,			
	Door, steel 24 gauge, overhead, sectional, electric operator, 12'-0" x 12'-			
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x			
B3010	**Roof Coverings**		**5.83**	**110,250**
	Roofing, single ply membrane, TPO, 60 mil membrane, heat welded			
	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive			
	Roof edges, aluminum, duranodic, .050" thick, 6" face			
	Flashing, aluminum, no backing sides, .019"			
	Gravel stop, aluminum, extruded, 4", mill finish, .050" thick			
B3020	**Roof Openings**		**0.17**	**3,150**
	Skylight, plastic domes, insulated curbs, 30 SF to 65 SF, single glazing			
	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized			

Figure 8 - Option 3
Fire Station appended to existing Village Hall

C Interiors		**15.28%**	**20.57**	**388,800**
C1010	**Partitions**		**7.50**	**141,750**
	Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish,			
C1020	**Interior Doors**		**2.50**	**47,250**
	Door, single leaf, kd steel frame, hollow metal, commercial quality,			
C1030	**Fittings**		**0.52**	**9,900**
	Toilet partitions, cubicles, ceiling hung, stainless steel			
C3010	**Wall Finishes**		**3.17**	**59,850**
	Glazed coating, low VOC			
	Painting, masonry or concrete, latex, brushwork, primer & 2 coats, low			
C3020	**Floor Finishes**		**2.93**	**55,350**
	Concrete topping, paint, low VOC			
	Vinyl, composition tile, 12" x 12" x 1/8" thick, recycled content			
C3030	**Ceiling Finishes**		**3.95**	**74,700**
	Acoustic ceilings, 3/4"mineral fiber, 12" x 12" tile, concealed 2" bar &			
D Services		**45.00%**	**60.60**	**1,145,250**
D2010	**Plumbing Fixtures**		**12.10**	**228,600**
	Water closet, vitreous china, bowl only w/ auto flush sensor flush valve,			
	Urinal, vitreous china, wall hung, waterless, ADA			
	Lavatory w/trim, vanity top, PE on CI, 20" x 18", faucet w/ hydroelectric			
	Kitchen sink w/trim, countertop, stainless steel, 33" x 22" double bowl			
	Laundry sink w/trim, molded stone, on wall, 45"x 21" double			
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"			
	Shower, stall, baked enamel, terrazzo receptor, 36" square			
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH, GreenSpec			
D2020	**Domestic Water Distribution**		**2.64**	**49,950**
	Water heaters, tankless, on-demand, natural gas/propane, 9.5 GPM			
D2040	**Rain Water Drainage**		**0.38**	**7,200**
	Roof drain, CI, soil,single hub, 4" diam, 10' high			
	Roof drain, CI, soil,single hub, 4" diam, for each additional foot add			
D3040	**Distribution Systems**		**2.98**	**56,250**
	Heat recovery pkgs, air to air, enthalpy recovery wheel, 10000 max CFM			
D3050	**Terminal & Package Units**		**22.24**	**420,300**
	Rooftop, multizone, air conditioner, medical centers, 10,000 SF, 23.33			
D4010	**Sprinklers**		**4.88**	**92,250**
	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 5000 SF			
D4020	**Standpipes**		**1.43**	**27,000**
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor			
D5010	**Electrical Service/Distribution**		**0.38**	**7,200**
	Overhead service installation, includes breakers, metering, 20' conduit			
	Feeder installation 600 V, including RGS conduit and XHHW wire, 100 A			
	Switchgear installation, incl switchboard, panels & circuit breaker,			
D5020	**Lighting and Branch Wiring**		**10.12**	**191,250**
	Receptacles incl plate, box, conduit, wire, 2.5 per 1000 SF, .3 watts per			
	Miscellaneous power, 1 watt			
	Central air conditioning power, 3 watts			
	LED fixtures, type C, 5 fixtures per 1000 SF			
	Daylight dimming control system, 10 fixtures per 1000 SF			
	Lighting on/off control system, 10 fixtures per 1000 SF			
D5030	**Communications and Security**		**1.98**	**37,350**
	Communication and alarm systems, fire detection, addressable, 25			
	Fire alarm command center, addressable without voice, excl. wire &			

D5090	**Other Electrical Systems** Energy monitoring systems, electrical, three phase, 5 meters Energy monitoring systems, mechanical, BTU, 1 meter w/1 duct & 5 Energy monitoring systems, Front end display Energy monitoring systems, Computer workstation		**1.48**	**27,900**
E Equipment & Furnishings		**0.51%**	**0.69**	**13,050**
E1090	**Other Equipment** 1.00-Sound system, amplifier, 250 W, excl rough-in wires, cables & 25.00-Locker, bench, laminated maple, top only 20.00-Lockers, steel, baked enamel, single tier, 60" or 72", minimum 2.00-Refrigerator, residential appliances, no frost, 10 to 12 C.F., 1.00-Range hood, residential appliances, vented, 2 speed, 30" wide, 1.00-Garbage disposal, residential appliances, sink type, minimum 1.00-Dishwasher, residential appliances, built-in, 2 cycles, minimum 1.00-Compactor, residential size, 4 to 1 compaction, minimum 2.00-Microwave ovens, residential appliances, minimum 1.00-Range, residential appliances, ceramic top, downdraft, with grille,		**0.64**	**12,150**
E2020	**Moveable Furnishings - By Owner** Signage, exterior, surface mounted, 24 ga aluminum, 10" x 7", no		**0.05**	**900**
F Special Construction		**0%**	**0.00**	**0**
G Building Sitework		**0%**	**0.00**	**0**
SubTotal		**100%**	**134.64**	**2,544,750**
Allowance for Renovation of Existing Village Hall - Connections, Restrooms, etc.			**18.52**	**350,000**
Contractor Fees (General Conditions,Overhead,Profit)		**15.00%**	**20.19**	**381,600**
Architectural Fees		**8.00%**	**12.38**	**234,000**
User Fees		**0.00%**	**0.00**	**0**
Total Building Cost			**185.73**	**3,510,350**

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